

Available online at www.sciencedirect.com**SciVerse ScienceDirect**

Energy Procedia 16 (Part A)(2012) iii–vi

Energy

Procedia

Contents

Preface

G. Yang	1
Study on the Pollution Control and Resource Recovery of Urban Street Rainwater	
B. Xue, X. Kang	2
Study on the Supplying System of Cooling Water of Air Conditioner based on the Urban Street Rainwater	
Z. Zhao, X. Han	8
Study on the Effects of Emissions Control on Electricity	
J. Yan, L. Zhen, X. Li, Y. Shi, J. Hu	14
Heavy Metal Pollution of Soils in the Site of a Retired Paint and Ink Factory	
W. Ji, T. Yang, S. Ma, W. Ni	21
Identifying the Criteria of Cadmium Pollution in Paddy Soils based on a Field Survey	
W. Ji, Z. Chen, D. Li, W. Ni	27
Environmental Friendly PV Power Plant	
N. Chen, X. Zhang, Y. Bai, Z. Han	32
Three Roller Curvature Scotch Straightening Mechanism Study and System Design	
Y. Yi, H. Jin	38
Feasibility Analysis of Biomass Power Generation in China	
H. Cui, R. Wu	45
Research on Active Yaw Mechanism of Small Wind Turbines	
Z. Wu, H. Wang	53
Fenton Reagent Oxidation and Decolorizing Reaction Kinetics of Reactive Red SBE	
H. Xu, M. Li, H. Wang, M. Juan, L. Zou	58
Effect Factors of Soy Sauce Wastewater Treatment by Alluretype Waste-Water Treatment Equipment	
X. Zhao, Z. Xu, S. Wang	65
A Simple and Efficient Way to Detect the Mining Induced Water-Conducting Fractured Zone in Overlying Strata	
S. Zhang, Y. Liu	70
Surface Work Function of Transparent Conductive ZnO Films	
W. Min, C.-F. Li, X.-R. Deng, H. Deng	76
Previous Research Analysis of the Traffic Network Study	
Y. Xu	81
Suppression of Peak Noise Caused by Time Delay of the Anti-Noise Source	
J. Yao, P. Lu	86
Influence of Fly Ash Substitution for Mineral Powder on High Temperature Stability of Bituminous Mixture	
J. Di, Z. Liu	91
A Forward Simulation Research to Resolve the Fault Shadow Problem	
N. Yan, J. Wei, J. Zheng, Q. Wei	97
Experimental Study on Grinding-Hardening of 1060 Steel	
J. Liu, Y. Wei, S. Huang, Z. Xu	103
The Comparative Study of Rapid and Energy-Saving Control for the SBR Operation	
J. Yao, Z. Zhi, H. Le, S. Li, J. Yang	109
Study on Barriers and Countermeasures of Technological Innovation of Ecological Service Function Assessment of Urban Greenbelt	
W. Wu, H. Zhao, Y. Ren, S. Dan, Y. Zhang	115
Analysis on the Carbon Emission Reduction Potential in the Cement Industry in Terms of Technology Diffusion and Structural Adjustment :A Case Study of Chongqing	
Y. Shi, L. Chen, L. Zhen, J. Yan, J. Hu	121
Study on MSAD-based Prediction of Steel Production	
L. Zhen, G. Pu, Y. Shi, J. Yan, X. Li	131
Evaluating the Performances of Small Wind Turbines: A Case Study in the South of Italy	
A. Messineo, S. Culotta	137
Kinetics of Ultrasound-Enhanced Oxidation of <i>p</i> -Nitrophenol by Fenton's Reagent	
D. Zhao, C. Ding, C. Wu, X. Xu	146
Applications of Underwater Laser Peening in Nuclear Power Plant Maintenance	
J. Zhu, X. Jiao, C. Zhou, H. Gao	153
Dam Seepage Monitoring Model based on Dynamic Effect Weight of Reservoir Water Level	
H. Hao, C. Bo	159
The System Reliability Analysis of 1000 kV UHV Transmission Tower based on Moment Method	
M. Li, Z. Li, D. Yu	166

SWOT Analysis for PCDM Development in Building Energy Conservation in China	
Q. Ying, Z. Li.	172
Landslide Risk Zoning based on Contribution Rate Weight Stack Method	
W. Zhang, W. Wang, Q. Xia.	178
Constructing DEM based on InSAR and the Relationship between InSAR DEM's Precision and Terrain Factors	
W. Zhang, W. Wang, L. Chen.	184
The Application of Multi-Variable Optimum Regression Analysis to Remote Sensing Imageries in Monitoring Landslide Disaster	
W. Zhang, W. Wang, F. Wu.	190
Flow Simulation and Analysis in a Vertical-Flow Sedimentation Tank	
G. Zhu, Y. Zhang, J. Ren, T. Qiu, T. Wang.	197
Analysis of Eutrophication of Yangtze River Yibin Section	
L. Ying, J. Ma, Y. Li.	203
Mutation Induction by DBD Plasma in Phosphate-Solubilizing Bacteria <i>Enterobacter Agglomerans</i>	
Y.X. Ren, X.L. Zhu, D.D. Fan, P. Ma, L.H. Liang.	211
Preparation of Cu(In,Ga)Se ₂ Thin Film by Solvothermal and Spin-Coating Process	
L. Ying, D. Kong, J. Li, Z. Cong, C. Chen, J. Brugger.	217
The Study of Enzyme Hydrolysis Saccharification Process of Stems and Leaves of Banana	
Y. Li, C. Qin, Y. Lei.	223
Development of Muscle-Related Genes and their Effects on Meat Quality	
Y. Guo, J. Li, S. Jin, J. Ye.	229
Discussion on Environment Impact Assessment in the Lifecycle of PV Systems	
J. Zhang, F. Lv, Z. Lei.	234
Carbon Nanotubes Cathode of Field Emission Lamp Prepared by Electrophoretic Deposition	
G. Chen, Z. Lan, H. Ma, Y. Ning, B. Zhang.	240
An Integrated Method used to Value Recreation Land—A Case Study of Sweden	
M. Liu, X. Luo, Q. Li.	244
Prevailing Wind Direction Forecasting for Natural Ventilation Adjustment in Greenhouses based on LE-SVM	
Y. Yang, Z. Yun.	252
Cause Analysis and Prevention of Road Tunnel Collapse in Complex Soft Strata	
H. Wang, Y. Jia, C. Lun.	259
Digital Control Algorithm for Two-Stage DC-DC Converters	
C. Piao, H. Qiao, C. Teng.	265
Experiments on a New Material for the Ecological Protection of Rock Slopes	
Y. Luo, D. Zhou, J. Zhang.	272
Fuzzy Entropy Clustering Approach to Evaluate the Reliability of Emergency Logistics System	
B. Gong, X. Chen, C. Hu.	278
Effects of Pesticide-Contamination on Population and Activity of Bacteria in Purple Paddy Soil	
X. Zhou, X. Shi, L. Zhang, Y. Zhou.	284
Health Risk Assessment of Cadmium Pollution Emergency	
D. Ming, C. Li.	290
A Preliminary Study of Environment Capacity Production Factor	
Y. Li, L. Li.	296
Study of Early Strength and Shrinkage Properties of Cement or Lime Solidified Soil	
W. Zhe, X. Xu, G. Wang.	302
Characteristics of Pyrolysis Products of Bori Lignite Briquette	
C. Mo, S. Zhu, Y. Yi, Y. Deng.	307
Numerical Study of Performance of a Micro Chip Cooler	
Q. Zhong, H. Wang.	314
A Fume Concentration Model of Underground Mine Fire and its Calculation	
C. Li, L. Hu, Z. Li, Z. Cao.	320
Effects of Thin Covers on the Release of Coal Gangue Contaminants	
T. Fu, Y. Wu, L. Ou, G. Yang, T. Liang.	327
Study on Roadway Parameters of Broken Compound Roof of Gently Inclined Thick Coal Seam	
Z. Song, J. Lei, X. Wang, X. Xu, X. Xin.	334
Analysis on the Risk of Northeast Asia Regional Energy Security Cooperation	
W. Qi, T. Xu, X. Guo.	341
Responses on Photosynthesis and Variable Chlorophyll Fluorescence of <i>Fragaria Ananassa</i> under Sound Wave	
Q. Meng, Q. Zhou, S. Zheng, G. Yang.	346
The Research Review of Land-use and Land-Management Problems in the Joint of Urban and Rural Area for the Last Two Decades	
X. Zhang, Z. Shan.	353
General Design Method of Flywheel Rotor for Energy Storage System	
Y. Han, Z. Ren, Y. Tong.	359
Study on Properties of Paraffin Phase Change Energy Storage Concrete	
Q. Wang, Z. Jing, Z. Ding, L. Qiu.	365
Risk Evaluation of Regional Collapses Geological Hazard based on D-S Evidence Theory ——A Case Study of Haiyuan Active Fault Belt in Ningxia Province	
L. Chen, W. Wang, W. Zhang.	371
Regional Environmental Performance Evaluation: A Case of Western Regions in China	
J.H. Sun, J. Hu, J.M. Yan, L. Zhen, Y.R. Shi.	377

Use Inhibition Rate of Vertical Movement Ability of <i>Daphnia Carinata</i> as an Indicator of Chromium Acute Bio-Toxicity	
Y. Wu, H. Ran, T. Fu	383
Effect of $C_3N_6H_6$ on Luminescent Properties of $SrSi_2N_2O_2:Eu^{2+}$ Yellow Phosphors Prepared by Microwave Reaction Method	
Y. Zhang, X. Liu, B. Lei, H. Wang, Q. Sun	391
Research on the Influence of Rainstorm Duration Distribution to the Multi-Water Resources Allocation of Artificial Lake	
F. Li, J. Niu, H. Zeng	397
Forecast on Energy Demand of Road Transportation in China	
Y. Ma, Y. Lou, Y. Gao	403
Mine Green Mining	
H. Shi	409
Experimental Study and Design on Automobile Suspension Made of Magneto-Rheological Damper	
F. Tu, Q. Yang, C. He, L. Wang	417
Simulation Studies on Protector of Pulse-Jet Cleaning Filter Bag	
Z. Rui, H. Shen, M. Zhao	426
Tensile Behavior of Polysulfonamide Fiber after Chemical Treatment	
Z. Wang, H. Shen	432
Discussion on the Model of Mining Circular Economy	
Y. Zhao, Z. Li, Z. Li, J. Qin	438
Influence of Quenching On-Line on Properties of X70 Steel for Sour Service Seamless Pipe	
Z. Ling, J. Fang, Z. Yong, Z. Yuan	444
Bi-Mimics of Different Polarizations in Order for GNSS-R Polarimetry	
X. Wu, Y. Li, C. Li	451
Effects of Hot Extrusion and Heat Treatment on Mechanical Properties and Microstructures of AZ91 Magnesium Alloy	
M. Tan, Z. Liu, G. Quan	457
A PWM Multilevel Current-Source Inverter used for Grid-Connected Wind Energy Conversion System	
J. Bao, W. Bao, J. Gong	461
CO ₂ Emission Calculation and Reduction Options in Ceramic Tile Manufacture-The Foshan Case	
J. Peng, Y. Zhao, L. Jiao, W. Zheng, Z. Lu	467
Layer Illumination Management Technology based on LED	
T. Li, Y. Sha, Luoguangyi	477
On-Board Prompt Device Design of no Smoking based on Clamping Photoelectric Detection	
T. Li, N. Xu	483
Discussion about Interrelated Planning and Constructions of Social Water Engineering in System of Town and Village	
L. Zhang, X. Zhang, Y. Li, J. Liu	489
Passive Sampling of Gaseous Persistent Organic Pollutants in the Atmosphere	
J. He, R. Balasubramanian	494
Research for Ultra-Low Emissions Diesel Engine Two-Valve Control Fuel System	
Y. Li, Y. Liu, J. Yang, A. Zhu	501
The Impact Research of Value Orientation and Pattern Evolution of Consumption on Environmental Issues	
Z. Ding	508
Analysis of Entrainment Ratio about Solar Ejector Refrigerant System	
H. Zheng, Y. Liang, L. Huang	516
Research on Verification and Implementation of RTL-based VHDL Simulator	
L. Ming, L. Sun	522
Research on Low-Carbon Driving Factors of China's Traditional Manufacturing	
X. Hua, C. Li, D. Tang, Z. Fei	528
An Evaluation Study on the Level of China's Low-Carbon Manufacturing based on Factor Analysis	
D. Tang, F. Zhong, P. Song, Z. Shen	535
Research on Evaluation Index System of Low-Carbon Manufacturing Industry	
D. Tang, P. Song, F. Zhong, C. Li	541
Policies of Developed Countries and Policy Choices of China Low-Carbon Manufacturing	
D. Tang, Z. Shen, C. Li, Y. Chen	547
China – Africa Foreign Trade Policies: The Impact of China's Foreign Direct Investment (FDI) Flow on Employment of Ghana	
D. Tang, K.B. Gyasi	553
Parameter Analysis of Diesel Helical Intake Port Numerical Design	
S. Jiang, S. Zhu, H. Wen, S. Huang	558
Building Smart Power Utilization Service System by using Business Process and Cloud Computing Technologies	
G. Dong, X. Zhang, Y. Li, X. Yang, K. Xu	564
Response Surface Optimization of the Operating Parameters for a Complex Distillation Column based on Process Simulation	
H. Wang, X. Cui, R. Wang, C. Li	571
The Discussion of Mechanism Selection for Pollution Control—based on Chinese SO ₂ Case	
S. Xu, L. Bin	579
Design and Analysis of Emergency Self-Traction System for Urban Rail Transit Vehicles	
D. Yuan, S. Gu, J. Liu, Y. Zhang, C. Lv	585
Fuzzy Comprehensive Evaluation of Coal Mine Safety Investment Structure based on the M(1,2,3) Model	
B.-S. Nie, P.-F. Zhao, J.-H. Guo, P.-P. Niu, G. Wang	592
Enhanced Photocatalytic Activity of Nitrogen Doped TiO ₂ Anatase Nano-Particle under Simulated Sunlight Irradiation	
X. Cheng, X. Yu, Z. Xing, J. Wan	598

Algorithm of Route Searching for Mine Geographic Network Y. Hou, X. Xia, T. Jia, J. Zhou, C. Li	606
Adaptive Resource Allocation for Electric Environmental Pollution Through the Control Network Y. Yang	610
A Note on the Pseudo Functions for Turbomachinery Aerodynamics Z.-C. Wu, J.-M. Feng	615
Dynamic Response Characteristics of Double-Layer Composite Cylindrical Shell Subjected to Multi-Field Coupling Loadings M. Zheng, G. Chen	619
Design of Real Time Monitor System of Manufacture Process of Iron and Steel Industry based on New Style Sensors K. Zhang	627
The Deficiency of E-Commerce Contract and Some Propose to Perfect J. Tang, W. Jia, S. Yang	633
MRT Lattice Boltzmann Schemes for High Reynolds Number Flow in Two-Dimensional Lid-Driven Semi-Circular Cavity Y. Fan, X. Shi, X. Guo, Q. Sai	639
A New Method to Sampling of Multiple Bandpass Signals J. Luo, S. Tian, Z. Wang, L. Guo	645
Hydraulic Characteristic of Cooling Tower Francis Turbine with Different Spiral Casing and Stay Ring L. Zhang, Y. Ren, Y. Li, D. Chen	651
China's Governance of Exhaustible Natural Resources under the WTO Era: Taking its REE Governance as a Case D. Hu	656
First-Principle Study of the Solution type of Boron in γ -Iron X. Li, P. Wu, S. Zhao, C. Chen, Y. Ran, N. Chen	661
Does Regulation on CO ₂ Emissions Influence Productivity Growth?—The Empirical Test Based on DEA Analysis C. Zhao	667
Comparative Analysis of Energy Efficiency in Airconditioning System with GSHP, Electricity-Driven Refrigerating Unit and Direct-fired Li-Br Absorption Refrigerating and Heating Unit S. Zhou, Z. Jing	673
Conditions for Dynamic Alliance Formation of Housing Industry Z. Wang, D. Yang, Y. Huo	679
The Implementation of China's Building Energy Efficiency Evaluation and Labeling and the Enlightenment S. Liu, J. Cheng, H. Bin, Y. Liu	687
Study on an Improved Method of 3D Braided Composites Detection based on Chaotic Cellular Neural Networks B. Sun, Z. Wan	693